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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/898,527	07/03/2001	Matthew B. Wall	2767.2001-005	7543
21005	7590	08/04/2004	EXAMINER	
HAMILTON, BROOK, SMITH & REYNOLDS, P.C. 530 VIRGINIA ROAD P.O. BOX 9133 CONCORD, MA 01742-9133			RUTTEN, JAMES D	
		ART UNIT	PAPER NUMBER	
		2122		

DATE MAILED: 08/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/898,527	WALL ET AL.	
	Examiner	Art Unit	
	J. Derek Ruttan	2122	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 09 June 2003.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-11 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-11 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 03 July 2001 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

1. Claims 1-11 have been examined.

Drawings

2. Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the following must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

- analyzing/displaying resulting in a map (claim 1)
- Predefined configuration for determination of location of inputs/outputs in the network (claim 2)
- Server process in communication with a client process with inputs/outputs viewable on any device in the network (claim 3)
- References published using electronic media, print media, or human conversation (claim 5)

- Mapping stored in application programs, databases or computer code libraries
(claim 6)
- Computer code that is compiled, dynamically linked and evaluated at runtime
(claim 7)
- Computer code that is interpreted and evaluated at runtime (claim 8)
- Sending/Receiving of messages can be enabled/disabled (claim 9)
- Criteria based on message source/destination/contents (claim 10)
- Assigning user permissions to a user (claim 11)

Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

4. Claim 7 is objected to because of the following informalities: The word "complied" in line 2 is a typo that should read --compiled--. Appropriate correction is required.
5. Claim 11 is objected to for the following informalities. The word "futher" in line 1 is a typo which should instead read --further--.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
7. Claims 2-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
8. Claim 2 recites the limitation "data objects and/or function objects" in lines 2 and 3. There is insufficient antecedent basis for this limitation in the claim. This limitation will be interpreted as --inputs and/or outputs--.
9. Claims 3-6, and 11 recite the limitation "data objects and/or function objects". There is insufficient antecedent basis for this limitation in the claims. This limitation will be interpreted as --inputs and/or outputs--.
10. Claims 7 and 8 recite the limitation "function objects". There is insufficient antecedent basis for this limitation in the claims. This limitation will be interpreted as --inputs and/or outputs--.

11. Claim 9 recites the limitation “the sending and receiving of messages.” There is insufficient antecedent basis for this limitation in the claims. This limitation will be interpreted and replaced with --modules can send and receive messages that--.
12. Claim 10 is rejected for being dependent upon rejected base claim 9.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14. Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by prior art of record “Modeling and Evaluation of Product Design Problems in a Distributed Design Environment” by Pahng et al. (Hereinafter referred to as “Pahng”).

As per claim 1, Pahng discloses:

A method for mapping business and engineering processes (page 1 “Abstract”),
comprising the steps of:

giving users access to a system for generating an emergent model (page 1 column 2 paragraph 2: “The DDE is a highly heterogeneous environment. Designers, engineering resources, **models and activities are not centralized** nor concentrated in one location, but rather are **distributed among many companies** and designers

working together over computer networks.”; also page 3 column 1 paragraph 4: “The Distributed Object-based Modeling and Evaluation (DOME) framework proposed in this paper uses these principles to provide a flexible environment to model and evaluate design problems using modules and **distributed modules.**”; also Figure 3 on page 4 and Figure 11 on page 7; Comments: As mentioned on page 6 lines 25-28 of the specification, the reference exhibits the qualities of an emergent model: distributed execution, storage and access.);

publishing inputs and/or outputs of models generated by the users (page 4 column 1 paragraph 2: “It manufactures gears and, using its in-house mathematical modeling capabilities and software applications, **provides access** to modules...”; also page 7 column 2 paragraph 4: “The relationships amongst modules specify how **outputs** of a module are connected to **inputs** of other modules.”; Comments: Publishing inputs and/or outputs is inherent in the use of a module, otherwise an associated module would be unable to anticipate the type of data to submit or the kinds of results to expect.);

subscribing to the published inputs and/or outputs of models generated by the users, thereby creating a network of linked inputs and/or outputs (page 4 column 1 paragraph 2: “These distributed design participants and their corresponding modules are **connected** through computer **networks.**”);

analyzing and displaying the network of linked inputs and/or outputs, resulting in a map of the business and engineering processes (page 9 Figure 15; Comment:

Analyzing is inherent in displaying the network, since the display needs to be able to connect various analyzed modules.); and

wherein the models generated are used in business and engineering processes (page 1 column 1 “Introduction”: “With the growing popularity of WWW-based browsers, many **manufacturing companies** are publishing their product information on the Internet. Some Internet-based companies are specialized in providing **design information** for machine part or component manufacturers.”).

As per claim 2, the above rejection of claim 1 is incorporated. Pahng further discloses: *wherein at least a part of the configuration of the networks of linked inputs and/or outputs is predefined and used to determine which inputs and/or outputs are generated on which of the computing devices in the computer network* (page 3 column 1 last paragraph).

As per claim 3, the above rejection of claim 1 is incorporated. Pahng further discloses *wherein a user interface is defined that displays the data objects and/or function objects on a computing device on the computer network using a client process that communicates with a server process wherein the data objects and/or function objects can be viewed on any computing device connected to the computer network* (page 7

column 1 paragraph 3 discusses use of CORBA which inherently provides accessibility using a client/server model.; also page 10 column 1 paragraph 1 and Figure 17).

As per claim 4, the above rejection of claim 1 is incorporated. Pahng further discloses: *wherein the inputs and/or outputs are stored in logical groups* (Figure 3).

As per claim 5, the above rejection of claim 1 is incorporated. Pahng further discloses: *wherein the references to the inputs and/or outputs are published using electronic media, print media or human conversation* (page 6 column 1 last paragraph).

As per claim 6, the above rejection of claim 1 is incorporated. Pahng further discloses: *wherein the step of generating the inputs and/or outputs provides an interface mapping for inputs and/or outputs stored in application programs, databases or computer code libraries* (Figure 11).

As per claim 7, the above rejection of claim 1 is incorporated. Pahng further discloses: *wherein the function objects are implemented by computer code that is complied, dynamically linked and evaluated at runtime* (page 7 column 1 paragraph 2 discloses implementation in C++ which inherently provides code for compilation, dynamic linkage, and runtime evaluation.).

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pahng as applied to claim 1 above, and further in view of “Web based collaborative visualization of distributed and parallel simulation” by Bajaj et al. (hereinafter referred to as “Bajaj”).

As per claim 8, the above rejection of claim 1 is incorporated. Pahng does not expressly disclose code that it interpreted and evaluated at runtime. However, in an analogous environment, Bajaj teaches distributed execution of code that is interpreted and evaluated at runtime (page 51 column 1 paragraph 1: “Java”). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Bajaj’s interpreted code in Pahng’s modeling system. One of ordinary skill would have been motivated to develop code that is capable of running on a heterogeneous computer platform.

17. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pahng as applied to claim 1 above, and further in view of “Firewalls Complete” by Gonçalves (hereinafter referred to as “Gonçalves”).

As per claim 9, the above rejection of claim 1 is incorporated. Pahng does not expressly disclose wherein the sending or receiving of messages can be enabled or disabled based on predefined criteria. However, in an analogous environment, Gonçalves teaches that messages can be examined based on various criteria and either be allowed or prohibited from further propagation (page 242 “Packet Filtering”). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the message filtering of Gonçalves in Pahng’s message passing system. One of ordinary skill would have been motivated to prevent unauthorized users from accessing sensitive information.

As per claim 10, the above rejection of claim 9 is incorporated. Pahng does not expressly disclose wherein the criteria is based upon message source, message destination or message contents. However, in an analogous environment, Gonçalves teaches that messages can be filtered based on many criteria including message source (page 243 “Source IP address”). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the message filtering criteria of Gonçalves in Pahng’s message passing system. One of ordinary skill would have been motivated to limit the filtering of message only to those situations that require restriction, while allowing valid messages to pass through.

18. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pahng.

As per claim 11, the above rejection of claim 1 is incorporated. Pahng does not expressly disclose read, write, execute and administrative permissions on a per input and/or output basis. However, Pahng further discloses future work including various levels of access control corresponding to different users of the system (page 11 column 1 paragraph 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use specific permission levels in Pahng's modeling system. One of ordinary skill would have been motivated to limit access to various modules to various users so intellectual property and security can be maintained.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Derek Rutten whose telephone number is (703) 605-5233. The examiner can normally be reached on M-F 6:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (703) 305-4552. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR

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system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jdr


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SUPERVISORY PATENT EXAMINER